Plan Sequence Number: 1000024761

Section 1. Registration Information

RMP w/o OCA data

Source Identification

Facility Name:

JCI Jones Chemicals Inc. - Torrance

Parent Company #1 Name: Parent Company #2 Name:

Submission and Acceptance

Submission Type:

Re-submission

Subsequent RMP Submission Reason:

5-year update (40 CFR 68.190(b)(1))

Description:

Receipt Date:

21-Nov-2011

Postmark Date:

21-Nov-2011

Next Due Date: Completeness Check Date: 21-Nov-2016 06-Sep-2012

Complete RMP:

Yes

De-Registration / Closed Reason:

De-Registration / Closed Reason Other Text:

De-Registered / Closed Date:

De-Registered / Closed Effective Date:

Certification Received:

Yes

Facility Identification

EPA Facility Identifier:

1000 0014 1394

Other EPA Systems Facility ID:

90507JNSCH1401W

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:

2216091

Parent Company #1 DUNS:

Parent Company #2 DUNS:

Facility Location Address

Street 1:

1401 W. Del Amo Blvd.

Street 2:

City:

Torrance

State:

CALIFORNIA

ZIP:

ONEH OI

ZIP4:

90501

County:

LOS ANGELES

Facility Latitude and Longitude

Latitude (decimal):

33.847534

Longitude (decimal):

-118.301613

Lat/Long Method:

Address Matching - House Number

Lat/Long Description:

Plant Entrance (General)

Horizontal Accuracy Measure:

150

Horizontal Reference Datum Name:

North American Datum of 1983

Source Map Scale Number:

Owner or Operator

Operator Name:

JCI Jones Chemicals Inc. - Torrance

Operator Phone: (310) 523-1629

Mailing Address

Operator Street 1:

1401 W. Del Amo Blvd.

Operator Street 2: Operator City:

Torrance

Operator State:

CALIFORNIA

Operator ZIP:

90501

Operator ZIP4:

1630

Operator Foreign State or Province:

Operator Foreign ZIP: Operator Foreign Country:

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:

Tim Ross

RMP Title of Person or Position:

West Coast VP and Branch Manager

RMP E-mail Address:

tross@jcichem.com

Emergency Contact

Emergency Contact Name:

Tim Ross

Emergency Contact Title:

Branch Manager

Emergency Contact Phone:

(310) 523-1629

Emergency Contact 24-Hour Phone:

(310) 523-1629

Emergency Contact Ext. or PIN:

Emergency Contact E-mail Address:

tross@jcichem.com

Other Points of Contact

Facility or Parent Company E-mail Address:

Facility Public Contact Phone:

Facility or Parent Company WWW Homepage

Address:

www.jcichem.com

Local Emergency Planning Committee

LEPC:

California Region 1 LEPC

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site:

29

FTE Claimed as CBI:

Covered By

OSHA PSM:

Yes

EPCRA 302:

Yes

CAA Title V:

Air Operating Permit ID:

OSHA Ranking

OSHA Star or Merit Ranking:

Last Safety Inspection

Last Safety Inspection (By an External Agency)

22-Jul-2009

Last Safety Inspection Performed By an External

Agency:

Fire Department

Predictive Filing

Did this RMP involve predictive filing?:

Preparer Information

Preparer Name:

Preparer Phone:

Preparer Street 1:

Preparer Street 2:

Preparer City:

Preparer State:

Preparer ZIP:

Preparer ZIP4:

Preparer Foreign State:

Preparer Foreign Country:

Preparer Foreign ZIP:

Confidential Business Information (CBI)

CBI Claimed:

Substantiation Provided:

Unsanitized RMP Provided:

Reportable Accidents

Reportable Accidents:

See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

Process Chemicals

Process ID:

1000030379

Description:

Process Chemical ID:

1000036600

Program Level:

Program Level 3 process

Chemical Name: CAS Number:

Chlorine

Quantity (lbs):

7782-50-5

CBI Claimed:

1800000

Flammable/Toxic:

Toxic

Plan Sequence Number: 1000024761

Process ID:

Description:

Process Chemical ID:

Program Level: Chemical Name:

CAS Number: Quantity (lbs): CBI Claimed:

Flammable/Toxic:

1000036601

1000030380

Program Level 3 process Sulfur dioxide (anhydrous)

7446-09-5 180000

Toxic

Process NAICS

Process ID:

Process NAICS ID:

Program Level:

NAICS Code:

NAICS Description:

1000030379 1000030679

Program Level 3 process

42469

Other Chemical and Allied Products Merchant

Wholesalers

Process ID: Process NAICS ID:

Program Level:

NAICS Code: NAICS Description: 1000030380

1000030680 Program Level 3 process

42469

Other Chemical and Allied Products Merchant

Wholesalers

Section 2. Toxics: Worst Case

Toxic Worst ID: 1000025141

Percent Weight:

Physical State:

Model Used: Release Duration (mins):

Wind Speed (m/sec):

Atmospheric Stability Class:

Topography:

Gas liquified by pressure

EPA's RMP*Comp(TM)

10

1.5 F

Urban

Passive Mitigation Considered

Dikes:

Enclosures:

Berms:

Drains:

Sumps:

Other Type:

None

Section 3. Toxics: Alternative Release

Toxic Alter ID: 1000026986

Percent Weight:

Physical State:

Gas liquified by pressure EPA's RMP*Comp(TM)

Wind Speed (m/sec):

3.0

Atmospheric Stability Class:

D

Topography:

Model Used:

Urban

Passive Mitigation Considered

Dikes:

Enclosures:

Berms:

Drains:

Sumps:

Other Type:

None

Active Mitigation Considered

Sprinkler System:

Deluge System:

Water Curtain:

Neutralization:

Excess Flow Valve:

Flares:

Scrubbers:

Emergency Shutdown:

Yes

Other Type:

Gas detection sensors, shutoff system and the

railcar valve closure system.

Toxic Alter ID: 1000026987

Percent Weight:

Physical State:

Gas liquified by pressure

Model Used:

EPA's RMP*Comp(TM)

Wind Speed (m/sec):

3.0

Atmospheric Stability Class:

D

Topography:

Urban

Passive Mitigation Considered

Dikes:

Enclosures:

Berms:

Drains:

Sumps:

Other Type:

None

Active Mitigation Considered

Sprinkler System:

Deluge System:

Water Curtain:

Neutralization:

Excess Flow Valve:

Flares:

Scrubbers:

Plan Sequence Number: 1000024761

Emergency Shutdown:

Other Type:

Yes

Gas detection sensors, shutoff system and the railcar valve closure system.

Section 4. Flammables: Worst Case

No records found.

Data displayed is assurate as of 40:00 AM (ECT) Total at New York CC

Section 5. Flammables: Alternative Release

No records found.

Section 6. Accident History

No records found.

Section 7. Program Level 3

Description

Prevention Program Descripiton: The prevention programs described in the facilitys Safety, Safety Training, and Mechanical Integrity Manuals represent integrated administrative controls intended to ensure the safety of workers, the public, and the environment. Many of these prevention programs (i.e., PHAs, compliance audits, and incident investigations) result in the development and implementation of additional safeguards (administrative and engineering controls). All covered processes have control systems designed to maintain operating parameters (temperature, pressures, flow, and level) within allowable limits. The covered processes are also equipped with alarms to alert personnel when the operating parameters exceed the allowable limits. The facility developed procedures and conducted training of personnel to familiarize them with the consequences of exceeding allowable limits (safety and operability) to ensure the correct response to the alarms. Safeguards to prevent, detect, or control accidental releases of regulated substances are described in the facilitys Safety, Safety Training, and Mechanical Integrity Manuals.

In addition, the facility has a comprehensive Security Plan designed to minimize the potential impact on JCI personnel, facilities, equipment, processes and products as a result of unlawful acts either made or attempted by individuals seeking to harm personnel, property and or the environment.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:

1000031407

Chemical Name:

Chlorine Toxic

Flammable/Toxic: CAS Number:

7782-50-5

Prevention Program Level 3 ID:

1000026289

NAICS Code:

42469

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):

31-Aug-2011

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):

31-Aug-2011

The Technique Used

What If:

Yes

Checklist:

What If/Checklist:

HAZOP:

Yes

Failure Mode and Effects Analysis:

Fault Tree Analysis:

Other Technique Used:

PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):

30-Jan-2012

Major Hazards Identified

Toxic Release: Yes Fire: Yes Explosion: Runaway Reaction: Polymerization: Overpressurization: Yes Corrosion: Yes Overfilling: Yes Contamination: Yes Equipment Failure: Yes Loss of Cooling, Heating, Electricity, Instrument Air: Yes Earthquake: Yes Floods (Flood Plain): Yes Tornado: Yes

Process Controls in Use

Hurricanes:

Vents: Yes Relief Valves: Yes

Check Valves: Yes

Scrubbers:

Flares:

Other Major Hazard Identified:

Manual Shutoffs: Yes Automatic Shutoffs: Yes

Interlocks:

Alarms and Procedures: Yes

Keyed Bypass:

Emergency Air Supply:

Emergency Power:

Backup Pump: Yes

Grounding Equipment:

Inhibitor Addition:

Rupture Disks: Yes Excess Flow Device: Yes

Quench System: Purge System:

None:

Other Process Control in Use:

Sensors, tank level monitoring system, seismic box,

ORP/PH/temp control system.

Mitigation Systems in Use

Sprinkler System:

Dikes:

Fire Walls:

Blast Walls:

Deluge System:

Water Curtain:

Enclosure:

Neutralization:

None:

Other Mitigation System in Use:

Gas sensors and automatic shutoffs, to include the

railcar valve closure system.

Monitoring/Detection Systems in Use

Process Area Detectors:

Yes

Perimeter Monitors:

None:

Other Monitoring/Detection System in Use:

Storage area detectors

Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory:

Yes

Change Process Parameters: Installation of Process Controls:

Installation of Process Detection Systems: Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

Yes

None Recommended:

None:

Other Changes Since Last PHA or PHA Update:

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):

08-Apr-2011

Training

Training Revision Date (The date of the most recent 15-Jan-2011 review or revision of training programs):

The Type of Training Provided

Classroom:

Yes

On the Job:

Yes

Other Training:

Job specific performance evaluations and emergency response drills.

The Type of Competency Testing Used

Written Tests:

Yes

Oral Tests:

Demonstration:

Yes

Observation:

Yes

Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of 15-Dec-2009 the most recent review or revision of maintenance procedures):

Equipment Inspection Date (The date of the most recent equipment inspection or test):

30-Oct-2011

Equipment Tested (Equipment most recently inspected or tested):

All valves (both actuated and manual), whips, transfer hoses, gauges, electrical motors, pumps, tanks, heat exchangers, expansion chambers, etc.

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

17-Jan-2008

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):

17-Jan-2008

Compliance Audits

Compliance Audit Date (The date of the most recent 18-Mar-2011 compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

20-Apr-2011

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

18-Mar-2011

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most 28-Oct-2011 recent review or revision of hot work permit procedures):

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

18-Mar-2011

Plan Sequence Number: 1000024761

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

11-Feb-2011

Confidential Business Information

CBI Claimed:

Description

Prevention Program Descripiton: The prevention programs described in the facilitys Safety, Safety Training, and Mechanical Integrity Manuals represent integrated administrative controls intended to ensure the safety of workers, the public, and the environment. Many of these prevention programs (i.e., PHAs, compliance audits, and incident investigations) result in the development and implementation of additional safeguards (administrative and engineering controls). All covered processes have control systems designed to maintain operating parameters (temperature, pressures, flow, and level) within allowable limits. The covered processes are also equipped with alarms to alert personnel when the operating parameters exceed the allowable limits. The facility developed procedures and conducted training of personnel to familiarize them with the consequences of exceeding allowable limits (safety and operability) to ensure the correct response to the alarms. Safeguards to prevent, detect, or control accidental releases of regulated substances are described in the facilitys Safety, Safety Training, and Mechanical Integrity Manuals.

In addition, the facility has a comprehensive Security Plan designed to minimize the potential impact on JCI personnel, facilities, equipment, processes and products as a result of unlawful acts either made or attempted by individuals seeking to harm personnel, property and or the environment.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:

1000031408

Chemical Name:

Sulfur dioxide (anhydrous)

Flammable/Toxic: CAS Number:

Toxic

7446-09-5

Prevention Program Level 3 ID:

1000026290

NAICS Code:

42469

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):

31-Aug-2011

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):

31-Aug-2011

The Technique Used

What If:

Yes

Checklist:

What If/Checklist:

HAZOP:

Yes

Failure Mode and Effects Analysis:

Fault Tree Analysis:

Other Technique Used:

PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):

30-Jan-2012

Major Hazards Identified

Toxic Release:

Yes

Fire:

Yes

Explosion:

Runaway Reaction:

Polymerization:

Overpressurization:

Yes Corrosion: Yes Overfilling: Yes

Contamination: Yes Equipment Failure: Yes

Loss of Cooling, Heating, Electricity, Instrument Air: Yes

Earthquake: Yes

Floods (Flood Plain): Yes Tornado: Yes

Hurricanes:

Other Major Hazard Identified:

Process Controls in Use

Vents: Yes

Relief Valves: Yes Check Valves: Yes

Scrubbers: Flares:

Manual Shutoffs: Yes Automatic Shutoffs: Yes

Interlocks:

Alarms and Procedures: Yes

Keyed Bypass:

Emergency Air Supply:

Emergency Power:

Backup Pump: Yes

Grounding Equipment:

Inhibitor Addition:

Rupture Disks: Yes Excess Flow Device: Yes

Quench System: Purge System:

None:

Other Process Control in Use:

Sensors, tank level monitoring system, seismic box,

ORP/PH/temp control system.

Mitigation Systems in Use

Sprinkler System:

Dikes:

Fire Walls:

Blast Walls:

Deluge System:

Water Curtain:

Enclosure:

Neutralization:

None:

Other Mitigation System in Use:

Gas sensors and automatic shutoffs, to include the railcar valve closure system.

Monitoring/Detection Systems in Use

Process Area Detectors:

Yes

Perimeter Monitors: None:

Other Monitoring/Detection System in Use:

Storage area detectors

Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory:

Change Process Parameters:

Installation of Process Controls:

Installation of Process Detection Systems: Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

Yes

None Recommended:

None:

Other Changes Since Last PHA or PHA Update:

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):

08-Apr-2011

Training

Training Revision Date (The date of the most recent 15-Jan-2011 review or revision of training programs):

The Type of Training Provided

Classroom:

Yes

On the Job:

Yes

Other Training:

Job specific performance evaluations and

emergency response drills.

The Type of Competency Testing Used

Written Tests:

Yes

Oral Tests:

Demonstration:

Yes

Observation:

Yes

Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of 15-Dec-2009 the most recent review or revision of maintenance procedures):

Equipment Inspection Date (The date of the most recent equipment inspection or test):

30-Oct-2011

Equipment Tested (Equipment most recently inspected or tested):

All valves (both actuated and manual), whips, transfer hoses, gauges, electrical motors, pumps, tanks, heat exchangers, expansion chambers, etc.

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):

17-Jan-2008

17-Jan-2008

Compliance Audits

Compliance Audit Date (The date of the most recent 18-Mar-2011 compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

20-Apr-2011

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

18-Mar-2011

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most 28-Oct-2011 recent review or revision of hot work permit procedures):

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

18-Mar-2011

Plan Sequence Number: 1000024761

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

11-Feb-2011

Confidential Business Information

CBI Claimed:

Section 8. Program Level 2

No records found.

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Yes

Facility Plan (Does facility have its own written emergency response plan?):

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Healthcare (Does facility's ER plan include information on emergency health care?):

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan):

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees):

Local Agency

Agency Name (Name of local agency with which the Los Angeles City Fire Department facility ER plan or response activities are coordinated):

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):

(310) 548-7579

Subject to

OSHA Regulations at 29 CFR 1910.38:

OSHA Regulations at 29 CFR 1910,120:

Yes

Clean Water Regulations at 40 CFR 112:

RCRA Regulations at CFR 264, 265, and 279.52:

OPA 90 Regulations at 40 CFR 112, 33 CFR 154,

49 CFR 194, or 30 CFR 254: State EPCRA Rules or Laws:

Yes

Other (Specify):

Executive Summary

1. Accidental Release Prevention and Emergency Response Policies

JCI is committed to being a responsible member of any community in which it has operations by giving top priority to operating in a safe and environmentally sound manner. Corporate policy dictates that facilities continuously identify methods to provide the safest working environment possible to its employees and to reduce the risk to the community and environment through implementation of inherently safer technology and procedures. This commitment to safe and environmentally sound operations is documented in the corporate policy and compliance/procedure manuals, which are available to all employees. This facility stresses safe and environmentally sound operations in employee training programs, and in written materials available at the facility. This facility's safety and environmental programs include monthly safety meetings of all employees. JCI has an environmental manual and a safety manual that cover general environmental and safety best practices and compliance topics. Each employee at this facility has access to the environmental and safety manuals that cover topics specific to this facility. There are regularly scheduled safety and environmental audits conducted by facility management, and periodic safety and environmental audits of the facility conducted by JCI corporate personnel. This risk management program document has been prepared to meet the requirements of the U.S. Environmental Protection Agency's Risk Management Program regulations as stated in 40 CFR Part 68 (Appendix A), as well as the California Accidental Release Prevention (CalARP) program regulations.

2. The JCI Facility and the Regulated Substances Handled

The primary function of this facility is to protect public health by supplying chemicals including chlorine and sodium hypochlorite to disinfect bulk water systems. The primary operations conducted at this facility include the distribution of inorganic chemicals and repackaging of inorganic gases. Chemicals are brought on site in bulk quantities (railcars, tank trucks, etc.), repackaged into smaller containers, and then transported to customers on an as-needed basis. Any residual compressed gas is absorbed in an appropriate solution and sold as product. The regulated substances handled by this facility are chlorine and sulfur dioxide.

3. The General Accidental Release Prevention Program and Chemical-Specific Prevention Steps

The prevention programs described in this facility's Safety, Safety Training, and Mechanical Integrity Manuals represent integrated administrative controls intended to ensure the safety of workers, the public, and the environment. Many of these prevention programs (e.g., PHAs, compliance audits, incident investigations) result in the development and implementation of additional safeguards (administrative and engineering controls). All covered processes have control systems designed to maintain operating parameters (temperature, pressures, flow, and level) within allowable limits. The covered processes are also equipped with alarms to alert personnel when the operating parameters exceed the allowable limits. This facility developed procedures and conducted training of personnel to familiarize them with the consequences of exceeding allowable limits (safety and operability) to ensure the correct response to the alarms. Safeguards to prevent, detect, or mitigate accidental releases of regulated substances are described in the facility's Safety, Safety Training, and Mechanical Integrity Manuals.

In addition, a seismic evaluation of the facility was conducted on September 28, 1992. A follow-up seismic evaluation of the facility, which included a walk down review, was conducted on June 2, 1999 in accordance with the 1997 uniform building code. An updated CalARP Seismic Assessment, including a walk down review, was conducted on October 4, 2006 by Olweny & Associates, Inc. The seismic assessment was conducted in accordance with the guidance document for CalARP seismic assessments (January 2004) approved by the Region I Local Emergency Planning Committee (LEPC). Another updated CalARP Seismic Assessment, including a walk down review, was subsequently conducted on September 19, 2011 by Olweny & Associates, Inc. This seismic assessment was conducted in accordance with the guidance document for CalARP seismic assessments (September 2009) approved by the Region I Local Emergency Planning Committee (LEPC).

A seismic monitoring system is installed to the present mitigation system. This system will activate/engage at 0.147 Gs (Earth Acceleration) and completely shutdown the production process.

4. The Five-Year Accident History

This facility compiled a five-year accident history (January 1, 2006 - Present) for all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known off-site deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage as required by the RMP regulations. The five-year accident history allows the

facility to explain to the community the factors causing or contributing to accidental releases, the on-site and off-site impacts of accidental releases, and the procedural and technological changes made to minimize the likelihood that these accidental releases will ever occur again. The intent of this information exchange is to create an informed community, while also documenting that accidental releases are investigated and concrete changes are made to protect against recurrence.

Personnel at the facility reviewed all incident investigation reports from January 1, 2006 to the present to identify accidental releases of extremely hazardous substances that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage. No accidental releases were identified.

5. The Emergency Response Plan

The facility does not have its own written emergency response plan. Instead, the facility is included in the written community emergency response plan. These activities are coordinated through the Los Angeles City Fire Department.

The facility does though have a detailed Emergency Action Plan to cover minor incidents at the facility. The facility's Contingency Plan Manual covers these activities.

6. Planned Changes to Improve Safety

Studies associated with prevention program elements such as PHAs, seismic evaluations, incident investigations, management of change, and compliance audits are regularly conducted at this facility to verify designs and to identify potential hazards.

Recommendations may be developed as a result of those studies and as a result of equipment inspections, safety meetings, review of industry experience, technology improvements, and employee suggestions. Once formulated, recommendations are reviewed and corresponding action items are developed to implement each recommendation.

JCI facility personnel reviewed the following documents to identify all action items that were formulated to reduce the risk (severity or likelihood) of an incident that could have plausibly resulted in an off-site consequence:

Accident Investigation Reports
Job Safety Analyses
Standard Operating Procedures

JCI is in the design process of enclosing the entire chlorine and sulfur dioxide production area which will include a scrubber system that has the capability to scrub 10,000 pounds (5 tons) of either chlorine or sulfur dioxide in the event of an accidental release of product during either the chlorine or sulfur dioxide repackaging process or the sodium hypochlorite or sodium bisulfite manufacturing process.